images and diagnosis

Endothelial cells in peripheral blood film

Tushar Sehgal, Shano Naseem *, Neelam Varma

Department of Hematology, Postgraduate Institute of Medical Education and Research, Chandigarh 160012, India

* Corresponding author. Address: Department of Hematology, Postgraduate Institute of Medical Education and Research, Sector 12, Chandigarh 160012, India. Tel.: +91 8872016124; fax: +91 172 2744401 · tusharsaggi8@gmail.com (T. Sehgal) · shanonaseem@yahoo.co.in (S. Naseem) · varmaneelam@yahoo.com (N. Varma) · Received for publication 29 May 2014 · Accepted for publication 30 June 2014

Hematol Oncol Stem Cell Ther 2014; 7(4): 165

DOI: http://dx.doi.org/10.1016/j.hemonc.2014.06.004

KEYWORDS: Endothelial cells; Peripheral blood film

A routine blood sample from a 60-year-old male was received with hemoglobin of 95 gm/L, total leucocyte count of 9.3×10^9/L, platelet count of 299×10^9/L and a normal differential leucocyte count. However, the peripheral blood film showed a cluster of cells appearing pleomorphic with a high nuclear-cytoplasmic ratio, a regular nuclear membrane with nuclear grooving, and abundant weakly basophilic cytoplasm identified as endothelial cells. Endothelial cells may appear in peripheral blood as extraneous cells. Other extraneous cells which can be seen include epithelial cells (either nucleated or non-nucleated) and subcutaneous fat cells. Clinical details of patient and morphological features help in their recognition. It is important to identify these extraneous cells, so that they are not misinterpreted as tumor cells (Fig. 1).

CONFLICT OF INTEREST

None.

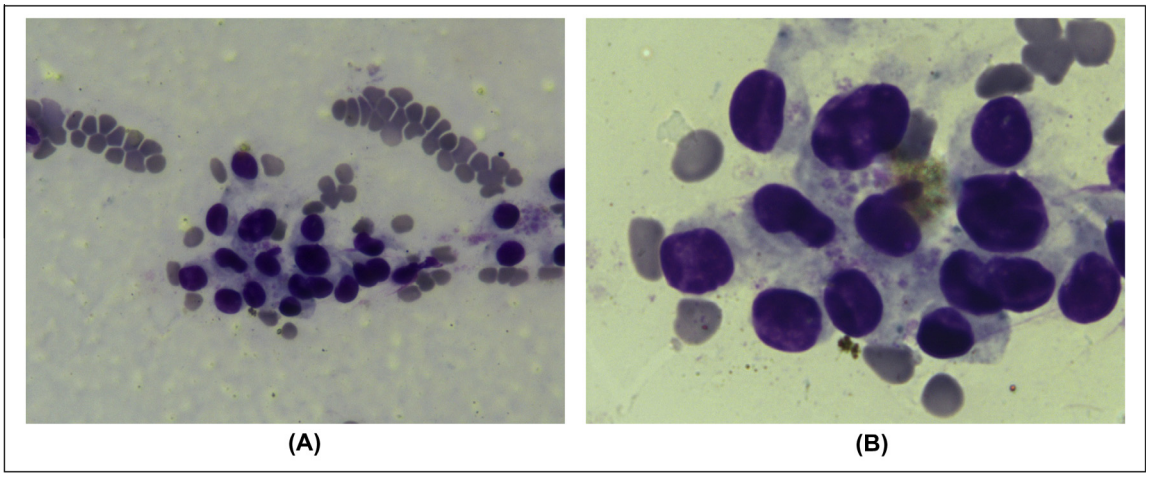

Figure 1. (A) Peripheral blood film showing endothelial cells in clusters [May-Grunwald-Giemsa (MGG) × 400]; (B) high power view showing large cells with regular nuclear membrane, nuclear grooving, and abundant basophilic cytoplasm [MGG × 1000].